

Applic. No. 09/174,042

Amdt. dated July 26, 2004

Reply to Office action of March 26, 2004

Remarks/Arguments:

Reconsideration of the application is requested.

Claims 1-15 are now in the application. Claims 7, 11, and 12 have been amended. Claims 13 and 14 have been withdrawn from consideration. Claim 15 has been added. Support for claim 15 can be found on page 13, lines 23-25. No new matter has been added.

In the third paragraph on page 2 of the above-identified Office action, claims 7, 11, and 12 have been rejected as being indefinite under 35 U.S.C. § 112.

More specifically, the Examiner has stated that the terms "given" and "corresponding" are relative and render the claims indefinite. Applicants still respectfully disagree with the Examiner with respect to the rejection (see amendment date December 1, 2003). Nevertheless, claims 7, 11, and 12 have been amended so as to facilitate prosecution of the application. Therefore, the rejection is believed to have been overcome. With regard to the last sentence of the paragraph referred to above, counsel never said that the Examiner was required to speak to a supervisor, but merely made the suggestion. Member's of counsel's firm with over 25

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years experience in patent prosecution often discuss such matters among themselves.

It is accordingly believed that the claims meet the requirements of 35 U.S.C. § 112, first and second paragraphs. Should the Examiner find any further objectionable items, counsel would appreciate a telephone call during which the matter may be resolved. The above-noted changes to the claims are provided solely for cosmetic or clarificatory reasons. The changes are not provided for overcoming the prior art nor for any reason related to the statutory requirements for a patent.

In the first paragraph on page 3 of the Office action, claims 1-12 have been rejected as being obvious over Aue (U.S. Patent No. 3,633,783) in view of Schmidberger (Auslegeschrift 1 004 207) under 35 U.S.C. § 103.

As will be explained below, it is believed that the claims were patentable over the cited art in their original form and the claims have, therefore, not been amended to overcome the references.

It is respectfully noted that the Examiner's comments on page 3 of the Office action, that the layers are connected in a

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vacuum-tight manner, that the space between the layers is evacuated, that the tube is fixed in a vacuum-tight manner to the layers, and that the flattened portions of the tubes are attached to the layers via a beam-welding process are irrelevant because they are product-by-process limitations and should be given no weight, is not correct. As will be explained below these limitations are not product-by-process limitations and accordingly, they do carry patentable weight.

A product-by-process claim is a claim where an article or at least one element of an article is claimed by reciting the process for fabricating the article or its element.

Typically, the article or element is recited in the form of a method claim or a method limitation, preferably by using the gerund form for the process step in which the product or its element is formed (Landis on Mechanics of Patent Claim

Drafting Fourth Edition § 46).

The limitations in the claims of the instant application are not recited in the form of a method claim or method limitation. Therefore, the limitations that the layers are connected in a vacuum-tight manner, that the space between the layers is evacuated, that the tube is fixed in a vacuum-tight manner to the layers, and that the flattened portions of the tubes are attached to the layers via a beam-welding process

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are not product-by-process elements. Accordingly, these limitations indeed define the final product and do carry patentable weight.

For example, a limitation that a wall is solid or is hollow is a structural limitation and not product-by-process limitation, likewise the fact that the space between the layers is evacuated is also a structural limitation. Furthermore, a connection existing in a vacuum-tight manner indicates that the connection does not have any voids for a vacuum to escape. Therefore, this must also be considered a structural limitation. Also, a beam-weld produces a much different physical weld than an arc weld, for example. Therefore, the beam weld must also be considered a structural limitation. Accordingly, the above-listed limitations do structurally define the final product and do carry patentable weight. It is suggested that the Examiner consult the claim drafting treatise mentioned above. The claims do not recite the method steps of "connecting", "evacuating", "fixing", and "attaching".

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful.

Claim 1 calls for, *inter alia*:

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the two outer covering layers connected to one another in a vacuum-tight manner by the connecting profile running along the contours, the two outer covering layers together with the connecting profile enclosing an intermediate space to be evacuated and filled with the evacuable heat insulating material.

The Aue reference discloses a refrigeration apparatus cabinet construction having an inner liner (14) and an outer wrapper (12). The inner liner (14) and the outer wrapper (12) are assembled to each other by breaker strips (16), which extend completely around a perimeter of the inner liner (14) and the outer wrapper (12). The breaker strips (16) provide a seal between the inner liner (14) and the outer wrapper (12) for enabling a foaming of a polyurethane plastic therebetween for insulation purposes.

The Schmidberger reference discloses a refrigerator housing which has two walls (10 and 12), which run parallel to each other. A pipe-shaped standoff piece (30) is welded to the walls (10 and 12).

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It is a requirement for a *prima facie* case of obviousness, that the prior art references must teach or suggest all the claim limitations.

The references do not show or suggest two outer covering layers connected to one another in a vacuum-tight manner by the connecting profile running along the contours, the two outer covering layers together with the connecting profile enclosing an intermediate space to be evacuated and filled with the evacuable heat insulating material, as recited in claim 1 of the instant application.

The Aue reference discloses that breaker strips (16) provide a seal between the inner liner (14) and the outer wrapper (12) for enabling a foaming of a polyurethane plastic therebetween for insulation purposes. While the breaker strips of Aue are suitable for enabling a foaming of polyurethane plastic the breaker strips do not connect two walls in a vacuum-tight manner. Furthermore, the Aue reference discloses expandable foaming polyurethane plastic insulation. A foamable insulation is not an evacuable heat insulating material. This is contrary to the invention of the instant application as claimed, in which the two outer covering layers are connected to one another in a vacuum-tight manner by the connecting profile running along the contours, the two outer covering

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layers together with the connecting profile enclosing an intermediate space to be evacuated and filled with the evacuatable heat insulating material.

The Schmidberger reference discloses that a pipe-shaped standoff piece (30) is welded to the walls (10 and 12). Furthermore, the Examiner stated that the Schmidberger reference is being used only for its specific conduit teaching, other features of the Schmidberger refrigerator not forming a part of the combination. Accordingly, Schmidberger does not disclose the two outer covering layers connected to one another in a vacuum-tight manner by the connecting profile running along the contours, the two outer covering layers together with the connecting profile enclosing an intermediate space to be evacuated and filled with the evacuatable heat insulating material, as recited in claim 1 of the instant application.

Moreover, Schmidberger does not disclose that the standoff piece is welded in a vacuum-tight manner. This is also contrary to the invention of the instant application, in which the at least one flange-shaped expanded and flattened region has an end surface facing away from the tube section and is fixed in a vacuum-tight manner to the at least one of the two outer covering layers at the aperture.

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The references applied by the Examiner do not teach or suggest all the claim limitations. Therefore, it is believed that the Examiner has not produced a *prima facie* case of obviousness.

Since claim 1 is believed to be allowable over Aue in view of Schmidberger, dependent claims 2-12 and 15 are believe to be allowable over Aue in view of Schmidberger as well.

In the last paragraph on page 4 of the Office action, claims 1-12 have been rejected as being obvious over Shuko (Japanese reference 2-136683) in view of Schmidberger (Auslegeschrift 1 004 207) under 35 U.S.C. § 103.

The Shuko reference discloses a heat insulating body box that has an inner box (8) and an outer box (9), which are connected by a coupling member (18). A foamed heat-insulating material (10) pushes and deforms the coupling member (18) by the pressure generated by the foaming of the insulation (10).

It is a requirement for a *prima facie* case of obviousness, that the prior art references must teach or suggest all the claim limitations.

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The references do not show or suggest two outer covering layers connected to one another in a vacuum-tight manner by the connecting profile running along the contours, the two outer covering layers together with the connecting profile enclosing an intermediate space to be evacuated and filled with the evacuable heat insulating material, as recited in claim 1 of the instant application.

The Shuko reference discloses that a coupling member is provided between two walls. A foaming insulation pushes and deforms the coupling member to keep a degree of air tightness between the walls. While the coupling member of Shuko is suitable for producing a seal that is suitable for connecting the wall for a foamed insulation material and producing a "degree of air-tightness", the coupling does not connect two walls in a vacuum-tight manner. Furthermore, the Shuko reference discloses expandable foamed heat insulating material. An expandable foamed heat insulating material is not an evacuable heat insulating material. This is contrary to the invention of the instant application as claimed, in which the two outer covering layers are connected to one another in a vacuum-tight manner by the connecting profile running along the contours, the two outer covering layers together with the connecting profile enclosing an intermediate

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space to be evacuated and filled with the evacuatable heat insulating material.

The same comments as provided above with regard to Schmidberger also apply here and are hereby incorporated by reference.

The references applied by the Examiner do not teach or suggest all the claim limitations. Therefore, it is believed that the Examiner has not produced a *prima facie* case of obviousness.

Since claim 1 is believed to be allowable over Shuko in view of Schmidberger, dependent claims 2-12 and 15 are believed to be allowable over Shuko in view of Schmidberger as well.

Even though claim 15 is believed to be allowable due to its dependency, it is noted that none of the references disclose that a tube section having the flange-shaped expanded and flattened region is an evacuation connecting stub, as recited in claim 15 of the instant application.

It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest the features of claim 1. Claim 1 is, therefore, believed to be patentable over the art and since

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all of the dependent claims are ultimately dependent on claim 1, they are believed to be patentable as well.

In view of the foregoing, reconsideration and allowance of claims 1-15 are solicited.

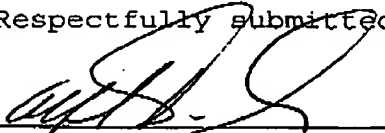
In the event the Examiner should still find any of the claims to be unpatentable, counsel respectfully requests a telephone call so that, if possible, patentable language can be worked out.

Petition for extension is herewith made. The extension fee for response within a period of one month pursuant to Section 1.136(a) in the amount of \$110 in accordance with Section 1.17 is enclosed herewith.

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Please charge any other fees which might be due with respect
to Sections 1.16 and 1.17 to the Deposit Account of Lerner &
Greenberg P.A., No. 12-1099.

Respectfully submitted,



For Applicant(s)

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